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PROCESSING CABBAGE CULTIVAR
EVALUATION TRIALS

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Very limited cabbage cultivar evaluation trials were conducted at the OARDC Vegetable Crops Research Branch near Fremont. The soil is a sandy loam. The plots received 850 lb/A broadcast of 10-20-20 and 150 lb/A within-row at planting of 6-24-24 fertilizer; 1 lb/A boron and 1 qt/A of Diazinon pre-plant incorporated. Treflan at 3/4 lb/A was pre-plant incorporated for weed control.

The plots were field seeded on April 25, using a Planet-Jr. seeder. Rows were 30 ft. long on 30-in. centers. The rows were hand-thinned to give an 18-in. spacing. Each cultivar was replicated four times.

Cultural care throughout the season was according to recommended procedures. No serious insect or weed problems developed during the season. However, a serious outbreak of black-rot occurred and was confined to the fourth replication in the trial. This replication was not harvested. This also included Agri-seed Nos. 2530 and 2520 and Sluis and Groot Mastodon from the non-replicated trial. Monthly rainfall totals were:

April	0.96 in.
May	3.63 in.
June	1.96 in.
July	2.69 in.
August	3.79 in.
September	0.96 in.

The plots were irrigated on May 13, with 1 in. of water. When the majority of the heads reached maturity, the cultivars were evaluated for uniformity of head size and maturity, plant size, and plant uprightness. The heads were harvested on August 9 and September 9, counted and weighed. Three heads of each cultivar from each replicate were cut and the core length and polar and equatorial diameters recorded. The observational trial was harvested on August 9 and September 9, the numbers and weight of heads recorded. Three heads of each cultivar were cut, and the core length, equatorial and polar diameter recorded.

Seed companies who supplied seed for these trials included: Harris-Moran Seed Co., Rochester, NY; Ferry-Morse Seed Co., Mountain View, CA; Sluis & Groot of America, Inc., Salinas, CA; Petoseed Co., Inc., Woodland, CA; Royal Sluis, Enkhuisen, Holland; Arco Seed Co., Inc., Brooks, OR; and Agri-Seed & Chemical Corp., Metamora, MI.

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TABLE 1. Yield and quality characteristics of cabbage cultivars for processing, Replicated Trial - 1985.

Cultivar	Source	Harvest Date		Measurements (in.)		
		Tons/ acre	Lbs/ head	Core lgth.	Polar diam.	Equatorial diam.
Quisto	Sluis & Groot	31.3	4.9	3.25	6.97	7.44
PSR-63880	Petoseed	45.8	7.2	3.33	7.92	7.69
Bravo	Harris-Moran	41.4	6.5	3.25	7.47	8.44
Condor	Harris-Moran	<u>55.3</u>	<u>8.6</u>	<u>4.42</u>	<u>8.25</u>	<u>8.94</u>
	LSD 5%	9.32	1.45	0.57	0.61	0.63

TABLE 2. Quality characteristic ratings of cabbage cultivars for processing,
Replicated Trial - 1985.*

Cultivar	Plant Characteristics*		
	Uniformity	Plant size	Plant uprightness
Quisto	1	2	1
PSR-63880	1	2	2
Bravo	1	3	2
Condor	2	3	3

* Uniformity: 1 = good; 2 = fair; 3 = poor
 Plant Size: 1 = small; 2 = medium; 3 = large
 Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 3. Yield and quality characteristics of cabbage cultivars for processing, Observational Trial - 1985.

Cultivar	Source	Harvest Date		Measurements (in.)		
		Tons/ acre	Lbs/ head	Core lgth.	Polar diam.	Equatorial diam.
Fernand	Sluis & Groot	32.2	6.54	3.33	7.50	7.50
PSX-53879	Petoseed	24.0	7.52	4.00	9.00	9.00
Olympic	Agri-Seed	30.2	5.20	3.83	7.16	8.16
FMX-134	Ferry Morse	20.7	4.75	3.83	7.00	7.16
FMX-261	Ferry Morse	18.1	4.44	2.83	7.50	7.16
Grand Slam	Agri-Seed	39.9	6.25	3.17	6.83	8.50
Arco 4-693-2	Arco-Seed	22.1	4.22	3.00	8.00	8.17
Arco 4-665-1	Arco-Seed	27.3	4.70	3.00	7.17	7.33
Falcon Fl	Royal Sluis	33.2	8.78	3.16	8.16	8.83
NCX-9046	Harris-Moran	33.3	5.73	3.00	6.83	7.33

TABLE 4. Quality characteristic ratings of cabbage cultivars for processing,
Observational Trial - 1985.

Cultivar	Plant Characteristics*		
	Uniformity	Plant size	Plant uprightness
Fernand	2	2	3
PSX-53879	2	2	3
Olympic	2	2	2
FMX-134	1	1	2
FMX-261	2	2	2
Grand Slam	2	3	2
Arco 4-693-2	2	2	2
Arco 4-665-1	2	3	2
Falcon Fl	2	2	2
NCX-9046	2	3	2

* Uniformity: 1 = good; 2 = fair; 3 = poor
 Plant Size: 1 = small; 2 = medium; 3 = large
 Uprightness: 1 = upright; 2 = slightly tipped; 3 = very tipped

TABLE 5. Additional observations on cultivars and lines including internal quality.*

Cultivar	Comments
Quisto	Med. frame, good uniform., upright plants, med-large mid-ribs, good color
PSR-63880	Med. frame, good uniform., slightly tipped plants, large mid-ribs
Bravo	Lg. frame, good uniform., slightly tipped plants, sm. mid-ribs, good color
Condor	Lg. frame, fair uniform., slightly tipped plants, lg. mid-ribs, good color
Fernand	Med. frame, fair uniform., very tipped plants, med.-lg. mid-ribs
PSX-53879	Med. frame, fair uniform., very tipped plants, lg. mid-ribs, good color
Olympic	Med. frame, fair uniform., slightly tipped plants, lg. mid-ribs, good color
FMX-134	Sm. frame, good uniform., slightly tipped plants, med. mid-rib, good color
FMX-261	Med. frame, fair uniform., slightly tipped plants, loose heads, lg. mid-ribs, good color
Grand Slam	Lg. frame, fair uniform., slightly tipped plants, loose heads, lg. mid-ribs, good color
Arco 4-693-2	Med. frame, fair upright., slightly tipped plants, loose heads, med. mid-rib, good color
Arco 4-665-1	Lg. frame, fair uniform., slightly tipped plants, lg. mid-ribs, good color
Falcon Fl	Med. frame, fair uniform., slightly tipped plants, med.-lg. mid-ribs, good color
NCX-9046	Lg. frame, fair uniform., slightly tipped plants, med.-lg. mid-ribs, good color

*Internal observations were generally on the mid-ribs of the internal leaves of the heads. Internal Color also noted where it was of special note.

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